

ABB BALDOR RELIANCE III

Customer information packet

SUM77504-4

75HP, RPM, 3PH, 60HZ, 320TY, XPNV, V1

Class - CLI GP C,D

Division - Not Applicable

Specifications

Enclosure	XPNV
Frame	320TY
Frequency	60.00 Hz
Haz Area Class and Group	CLI GP C,D
Haz Area Division	Not Applicable
Phase	3
Agency Approvals	C UR US CCSA US
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Cable Length	25 FOOT
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Haz Area Temp Code	T3C
Heater Indicator	No Heater
Insulation Class	F
Inverter Code	Not Inverter
IP Rating	IP68
KVA Code	F
Lifting Lugs	Standard Lifting Lugs
Motor Standards	NEMA
Mounting Arrangement	V1
Number of Poles	4
Product Family	Pump - Centrifugal
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Service Factor	1.15
Shaft Diameter	2.499 IN
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Starting Method	Direct on line

Part Detail

Revision	E
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	85945
Layout	619738-007
Eff. date	12-10-2024
CD Diagram	416820-036
Poles	///
Leads	
Proprietary	False
Created date	05-06-2021

Thermal Device - Winding

Normally Closed Thermostat

Nameplate

000613007MS										
CAT.NO.	SUM77504-4			SPEC NO.	S32-CWS0-0008					
SER.NO.					FRAME SIZE	320TY				
CONSTANT HP RPM	HP	RPM	VOLTS		AMPS		HZ		S.F.	
	75	1775	460		88		6-60		1.00	
	75	1775	460		88		60		1.15	
	@			HZ	CODE	F				
	TYPE	P	INSUL.CLASS		F	TORQUE	10:1_VT			DESIGN
D.E. BRG.	85BJ33J30X			ENCL	TENV	DUTY		15 MIN	PH	3
O.D.E. BRG.	50BC03JPG30A			MOTOR WEIGHT				AMB	40	
	*15 MIN IN AIR ;SUB. IN									
	SEWAGE / WATER ONLY									

000613007RC			
CLASS I GROUP	C D X	NO.	
CLASS II GROUP	X X X		
OPERATING TEMP CODE	T3C		

000692000MB	
SUITABLE FOR OPERATION ON PWM	
INVERTER EQUIPPED WITH IGBT	
DEVICES AND CAPABLE OF	
CARRIER	
FREQUENCY OF 2 KHZ MINIMUM	

000613007MS

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	75	1775	460		88	6-60	1.00		
	75	1775	460		88	60	1.15		
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TYPE	P	INSUL.CLASS		F	TORQUE	10:1_VT		DESIGN	B
D.E. BRG.	85BJ33J30X			ENCL	TENV	DUTY	15 MIN	PH	3
O.D.E. BRG.	50BC03JPG30A			MOTOR WEIGHT			AMB	40	
	*15 MIN IN AIR ;SUB. IN								
	SEWAGE / WATER ONLY								

Record #85945 - Typical performance - not guaranteed values

Winding	12WGA0162
Type	1286M
Enclosure	PART

Nameplate data

Rated Output	75		
Volts	230/460		
Full Load Amps	176/88		
R.P.M.	1775		
Hz	60	Phase	3
KVA Code	F		
S.F.	1.15		
NEMA Nom. Eff.	93	Power Factor	87
Duty	15 MIN		
S.F. Amps			

460 V, 60 Hz:

High Voltage Connection

Full Load Torque	221.8 LB-FT
Start Configuration	direct on line
Breakdown Torque	563 LB-FT
Pull-up Torque	236 LB-FT
Locked-rotor Torque	292 LB-FT
Starting Current	466 A
No-load Current	24.59
Line-line Res. @ 25°C	0.0809 Ω
Temp. Rise @ Rated Load	118°C
Temp. Rise @ S.F. Load	144°C
Locked-rotor Power Factor	26.1
Rotor inertia	11.5 lb-ft ²

Load Characteristics 460 V, 60 Hz, 75 HP

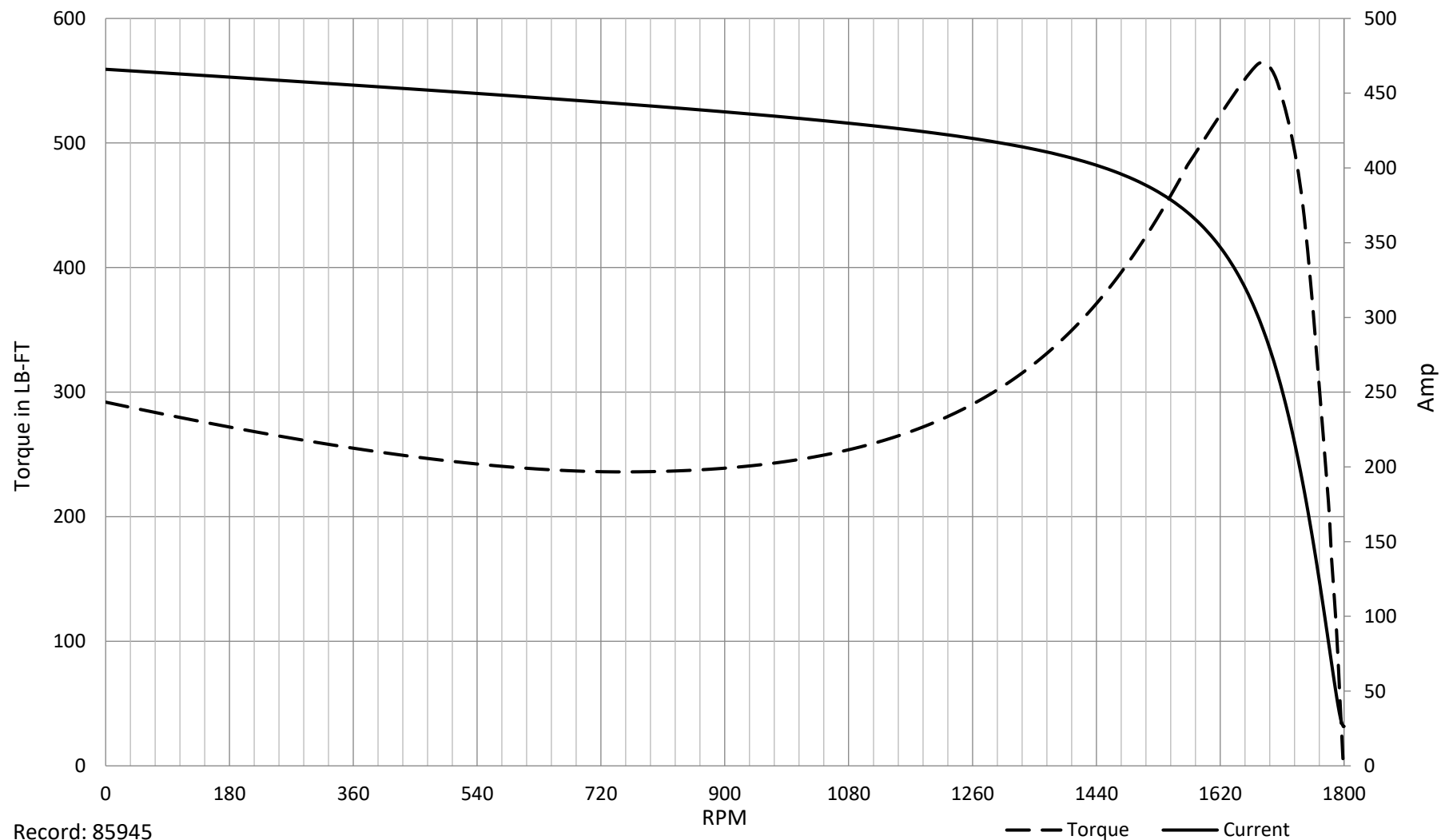
% of Rated Load	NL	25	50	75	100	125	150	SF
Power Factor	9	64	82	87	87	87	87	87
Efficiency	0	85	90.8	92.3	93	93	92.7	93
Speed	1799	1794	1789	1782	1776	1769	1760	1772
Line amperes	24.59	32.19	47.22	65.48	86.76	108	131	99.5

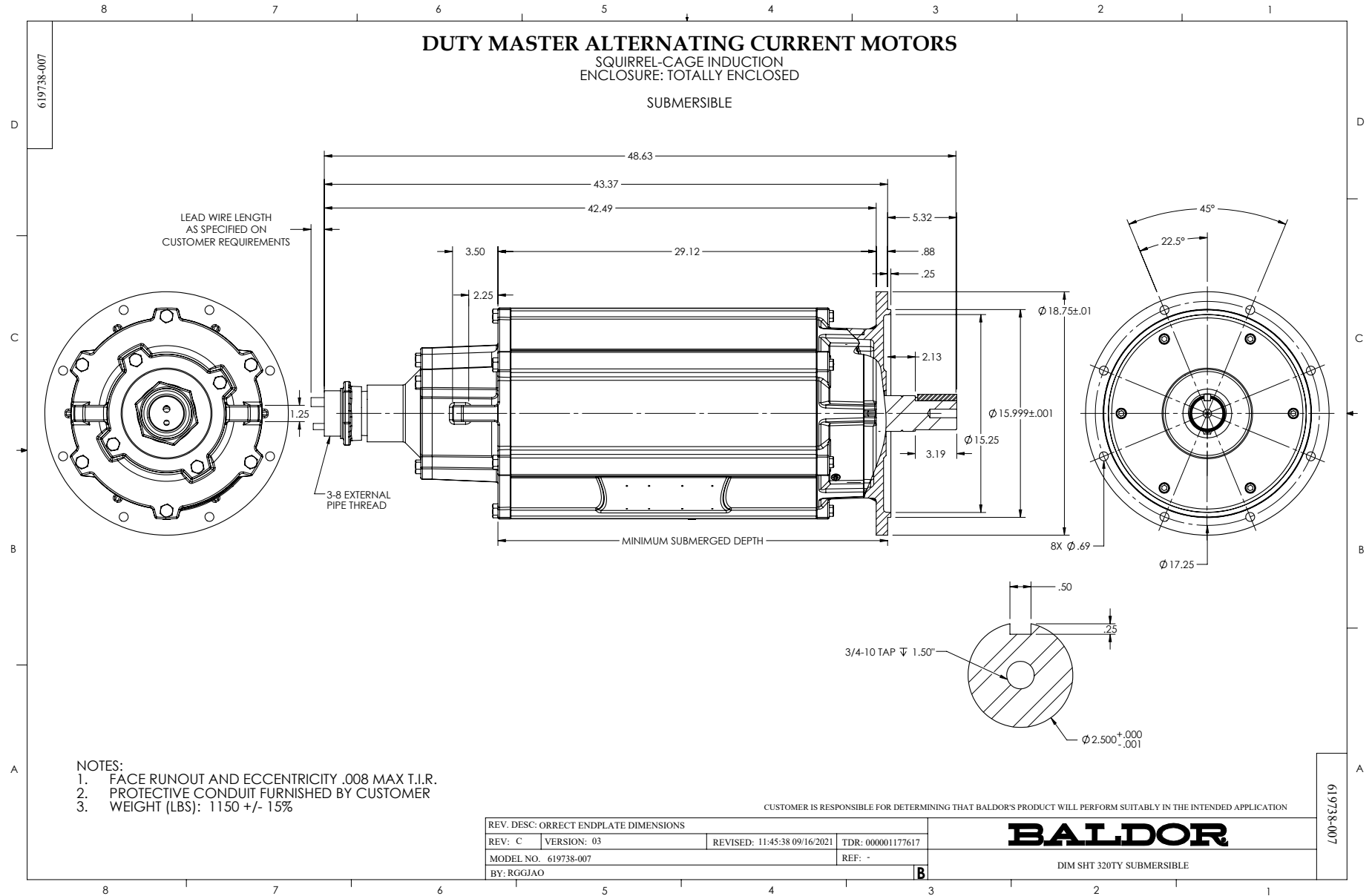
SPEED TORQUE / SPEED CURRENT CURVES



12WGA0162

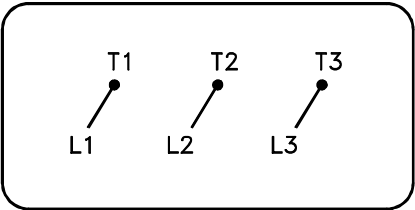
75HP 460V 60HZ





416820-036

A-C MOTOR
CONNECTION DIAGRAM
STANDARD 3 LEAD CONNECTED



(N.P. 1575-BA)

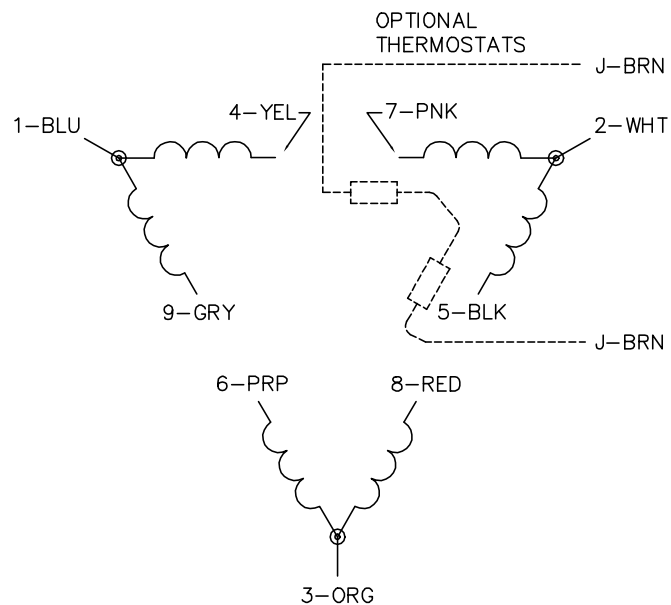
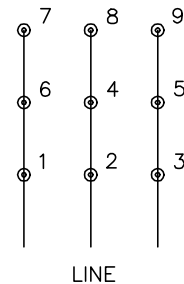
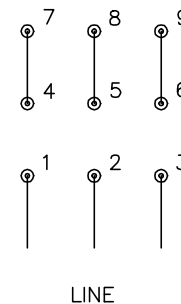
416820-036

REV. DESC: LOADED TO BUS, C/R 335225		
REV. LTR: -	VERSION: 00	TDR: 000000538207
FILE: \MGA\00000\682		REVISED: 11: 54: 06 04/30/2010
MTL: -		BY: RAGRA

BALDOR

CONN DIAG - STANDARD 3 LEAD
SH 1 of 1

CD0180


LOW VOLTAGE
(2D)

HIGH VOLTAGE
(1D)

NOTES:

1. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
2. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
3. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY BE A MULTIPLE OF THOSE SHOWN ABOVE.
4. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

REV. DESC: ADD CLASS CONN00000007

REV. LTR: D

VERSION: 01

TDR: 000001099922

FILE: \AAA\00005\148

REVISED: 10: 25: 29 02/19/2019

BY: ENBRIRO

MTL: -


BALDOR - RELIANCE®

3PH, DV, 9 LEADS, DELTA CONNECTION

SH 1 of 1

CD0180